

IDAHO DEPARTMENT OF FISH & GAME

QUARTERLY COORDINATION REPORT
(Final Report)

Dingell-Johnson Projects



1 December 1977 - 28 February 1978

by

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(1 December 1977 - 28 February 1978)

IDAHO DEPARTMENT OF FISH AND GAME

This quarterly report is intended to satisfy the requirements under project F-67-C-3. The material that has been included was abstracted from the research biologists' annual performance reports and briefly summarizes the work undertaken and results for each of these projects during the year.

F-18-R-24 -- STATEWIDE FISHING HARVEST SURVEY

Job I. Estimates of the 1977 Harvest of Salmon and Steelhead

Preliminary estimates indicate that anglers caught approximately 900 Chinook salmon in the main stem of the Salmon River and 400 in the Middle Fork Salmon River during 1977.

Job II. Check Station Surveillance of Major Salmon Fisheries in Idaho

Between 21 May and 4 July 1977, Chinook salmon anglers in the upper Salmon River drainage caught an estimated 900 salmon in the main stem and an estimated 220 from the Middle Fork. Check stations operated to monitor these fisheries for possible overharvest disclosed fishing success only half that of prior years.

Post-season field work showed that most Chinook spawners remained in lower river areas until just prior to spawning time and were not in the areas normally fished by anglers. This prevented a potential overharvest on what appeared to be an extremely vulnerable resource.

F-49-R-16 -- SALMON AND STEELHEAD INVESTIGATIONS

Each year regional fishery biologists survey major Chinook salmon spawning areas in their respective regions to count the number of redds constructed in trend count areas and to obtain age and sex composition data. The data are made available for trend analysis, management and research use.

The redds counted in trend areas during 1977 were 25% less than the 5-year average for these areas.

Very few jacks were on the spawning grounds in 1977 which indicates poor survival of progeny from the 1974 brood year.

There appeared to be a late movement of fish onto the Bear Valley and Elk Creek spawning areas. We have always noted a short upstream movement of gravid fish just prior to the onset of spawning, but this late movement was more pronounced in 1977.

Lure fishermen made up 13% of the anglers, fished 14.5% of the hours, harvested 6.6% of the rainbow and 73.3% of the largemouth bass. Lure fishermen caught fish at a rate of 0.56 per hour.

During 1977, 19.6% of the anglers fishing Crane Falls Lake listed fishing as excellent, 46.9% good, 26.9% fair and 6.6% poor. Generally, fly fishermen were most satisfied with the fishery, followed in decreasing degree of satisfaction by lure fishermen, bait fishermen and ice fishermen,

Fly fishermen overwhelmingly approved of management of Crane Falls for quality fishing with the accompanying restrictions (95%), lure anglers slightly favored it (52.5%), ice fishermen were slightly in favor (52.5%) and less than half of the bait fishermen (42%) were in favor.

We found that with a six-fish limit and no supplemental releases during the summer that Crane Falls Lake could easily be fished out by mid-summer. During 1977 anglers had removed 58% of the fish by 22 April, 67% by 20 May, 90% by 17 June and 95% by 29 September.

Job XIX. Cove Arm Reservoir Fisheries Investigations

During 1977 (1 January-7 October) a total of 3,176 anglers spent 10,430 hours fishing Cove Arm Reservoir to harvest 2,821 rainbow, 10,288 crappie, 75 largemouth bass, 13 smallmouth bass, 449 perch, 259 bluegill and 426 bullhead. An additional 203 rainbow, 206 crappie, 3 largemouth bass, 4 perch and 4 bullheads were caught and released.

Approximately 80% of the harvest during 1977 was warm water fish and 20% trout.

Bait fishermen generated about three-fourths of the fishing effort during 1977 and harvested over two-thirds of the fish. Most fishing was from the bank.

F-66-R-3 -- RIVER AND STREAM INVESTIGATIONS

Job III-c Silver Creek Fisheries Investigations -- Survey of Angler Use and Harvest

In 1975 the Idaho Department of Fish and Game initiated an intensive fishery investigation on Silver Creek designed to aid the development of a management plan for the drainage. To assess the status of the fish stocks in Silver Creek we collected information on the relative abundance, density, distribution, species composition, movement, sizes and age and growth of fish. During 1977 we collected information characterizing the Silver Creek fishery, estimated total angler effort and harvest and assessed angler opinions regarding the fishery.

Silver Creek currently supports an abundant population of self-sustaining wild rainbow trout, particularly within the upper sections and tributaries. This population is comprised of predominantly 2- and 3-year-old trout; large (>400 mm) and old age (>IV+) trout are uncommon.

Since the early 1900's a variety of rainbow trout stocks have been introduced into Silver Creek forming a complex gene-pool. As a result, Silver Creek supports spring-spawning and fall-spawning races of rainbow trout. Although most wild rainbow trout sustained a home range, a portion of the population exhibited upstream and downstream migrations in the spring and fall related to spawning.

The primary tributaries; Stalker, Grove, Wilson and Loving creeks function as important spawning and rearing areas for wild rainbow trout.

Hatchery catchable rainbow trout planted in Silver Creek moved considerable distances from the planting site into sections of Silver Creek where no hatchery trout were planted.

Trout sampled in Silver Creek in 1976 and 1977 grew slower than trout sampled in 1952. However, a disproportionate number of trout sampled in 1952 consisted of old age fish. Growth of wild rainbow trout in Silver Creek in 1976 and 1977 was comparable to growth rates of trout in the South Fork Boise River.

Preliminary results indicate that the catch and release regulations currently in effect on Section 1 are increasing the abundance of large trout within that section.

Anglers expended an estimated 32,033 hours of effort and captured 32,112, game fish in Silver Creek and tributaries in 1977. Wild rainbow trout comprised a majority of the catch from all sections except 3 and 4 where large numbers of hatchery catchable rainbow trout were planted. The catch consisted of predominantly 2- and 3-year-old trout with few trout over 4-years-old.

A majority of the anglers who fished Silver Creek caught at least one game fish per trip (79% successful trips). The catch rate exceeded or approached one fish per hour in four stream sections. The catch rate for wild rainbow trout was largest in sections 1 and 2.

Although anglers were allowed to keep fish on sections 2 through 5 and Grove and Loving creeks, approximately 50% of the wild trout caught were subsequently released. Anglers released over 14,705 wild rainbow trout from a total catch of 20,683 wild rainbow in 1977. Fly fishermen released a majority (94%) of all wild rainbow released in 1977.

Fly fishermen comprised a majority of the anglers who fished Silver Creek in 1977. Anglers using flies were also the most successful fishermen on Silver Creek and they caught a disproportionate amount of the catch of wild rainbow trout for the effort expended.

Most anglers who fish Silver Creek considered the fishing good or fair, were satisfied with the species composition in the stream and preferred to catch wild rainbow trout. Anglers opposed plants of hatchery catchable rainbow trout in the upper sections of the stream and they supported the catch and release regulations in effect on section 1.

Job IV. Lochsa River Fisheries Investigations

To evaluate changes in angling pressure and harvest of game fish brought about by the newly imposed catch-and-release regulations above Boulder Creek, fisheries personnel conducted an intensive angler count-interview type creel census on the Lochsa River and the lower 12.9 km (8 mi.) of Crooked Fork Creek. Census techniques and stream sections were the same as those used in 1976.

From 28 May to 10 September 1977, anglers fished an estimated 8,785 hours below Boulder Creek to catch and keep an estimated 1,742 wild rainbow steelhead (27.5%), 4,021 hatchery catchable rainbow (63.4%), 210 cutthroat trout (3.3%), 22 Dolly Varden (0.3%) and 351 whitefish (5.5%). Anglers fished an additional 984 hours above Boulder Creek to catch and release an estimated 1,853 wild rainbow-steelhead, 541 cutthroat and 28 whitefish.

From 29 May to 10 September 1976, anglers fished an estimated 13,679 hours in the entire census area to catch and keep 11,170 wild rainbow-steelhead (73.0%), 2,557 hatchery catchable rainbow (16.7%), 654 cutthroat trout (4.3%), 195 Dolly Varden (1.3%) and 717 whitefish (4.7%).

In the new catch-and-release area above Boulder Creek, estimated angler effort decreased by 88.1% from 8,249 hours in 1976 to 984 hours in 1977. Actual harvest of wild rainbow-steelhead decreased 94.5% from 8,444 to 470 while harvest of cutthroat decreased 75.1% from 449 to 112.

Below Boulder Creek, which remained catch-and-keep both years, estimated angler effort increased by 61.7% from 5,430 hours in 1976 to 8,785 hours in 1977. Harvest of hatchery rainbow increased five-fold from 755 in 1976 to 4,021 in 1977.

Job VIII: Clearwater River Steelhead Investigations

Steelhead anglers fishing for summer run steelhead in the Clearwater River during the 1976 fall season did so under nonconsumptive regulations for the second time in as many years. There was no steelhead fishery permitted in the spring of 1977. Critically low passage across Snake River dams reduced Clearwater steelhead to an estimated 6,300 fish. Cooler than normal summer temperatures and near drought conditions during the fall provided excellent angling opportunities for catch-and-release steelhead fishermen. Increased river flows, due to Dworshak Dam discharges were limited to a 2-week period in late November and water temperatures remained above 5 C (41 F) until mid-December.

Steelhead anglers caught-and-released an estimated 1,852 summer run fish while spending 9,060 hours during the 3-month fishery (1 October-31 December) for an average catch rate of 4.9 hours per fish. The 1976 nonconsumptive fishery showed a three-fold increase in angling effort from the 1975 fishery, but still remained 81% lower than the 5-year average spent by steelhead anglers between 1969 and 1973.